

CLAIMS

What is claimed is:

[Claim 1] A vehicular headlamp comprising a semiconductor light-emitting device and an optical system comprising at least one of a reflector and a lens, the improvement wherein said light-emitting device comprises at least one semiconductor light-emitting element for forming a first illuminating beam and at least one semiconductor light-emitting element for forming a second illuminating beam, said illuminating beams being switchable by selectively activating selected ones of said light-emitting elements for forming said first and second illuminating beams.

[Claim 2] The vehicular headlamp according to claim 1, wherein said first illuminating beam is a high beam and said second illuminating beam is a low beam.

[Claim 3] The vehicular headlamp according to claim 2, wherein each of said light-emitting elements has a horizontally elongated shape, extending in a horizontal direction orthogonal to the optical axis of said light-emitting device, a light distribution pattern being formed by expanding a light source image of said light-emitting elements mainly in said horizontal direction with said optical system.

[Claim 4] The vehicular headlamp according to claim 3, wherein said light-emitting device comprises a lens, said light-emitting devices for forming said high and low beams are each one in number, said light-emitting element for forming said high beam has a rectangular

shape viewed in the direction of said optical axis of said light-emitting device, and a long side of said light-emitting element for forming said high beam intersects with and is orthogonal to a center axis of said lens of said light-emitting device.

[Claim 5] The vehicular headlamp according to claim 4, wherein a distance between one long side of the two long sides of said light-emitting element for forming said high beam which is closer to said light-emitting element for forming said low beam and a center of said light-emitting element for forming said low beam is in a range of 0.3 to 1 mm in a direction orthogonal to a direction of said optical axis of said light-emitting device.

[Claim 6] The vehicular lamp according to claim 1, further comprising a light-shielding member provided between said at least one light-emitting element for forming said first beam and said at least one light-emitting element for forming said second beam.

[Claim 7] A vehicular headlamp comprising a semiconductor light-emitting device and an optical system comprising at least one of a reflector and a lens, the improvement wherein said light-emitting device comprises at least one semiconductor light-emitting element for forming a first illuminating beam and at least one semiconductor light-emitting element for forming a second illuminating beam, a base member on which said semiconductor light-emitting elements are mounted, and a plastic lens enveloping each of said light-emitting elements, said illuminating beams being switchable by selectively activating selected ones of said light-emitting elements for forming said first and second illuminating beams, each of said light-emitting elements being mounted at a position offset from an optical axis of said plastic lens.

[Claim 8] The vehicular headlamp according to claim 7, wherein each of said light-emitting elements has a horizontally elongated shape, extending in a horizontal direction orthogonal to said optical axis of said lens, a light distribution pattern being formed by expanding a light source image of said light-emitting elements mainly in said horizontal direction with said optical system.

[Claim 9] The vehicular headlamp according to claim 8, wherein said light-emitting devices for forming said high and low beams are each one in number, wherein said light-emitting element for forming said high beam has a rectangular shape viewed in the direction of said optical axis of said light-emitting device, and a long side of said light-emitting element for forming said high beam intersects with and is orthogonal to a center axis of said lens of said light-emitting device.

[Claim 10] The vehicular headlamp according to claim 9, wherein a distance between one long side of the two long sides of said light-emitting element for forming said high beam which is closer to said light-emitting element for forming said low beam and a center of said light-emitting element for forming said low beam is in a range of 0.3 to 1 mm in a direction orthogonal to a direction of said optical axis of said light-emitting device.

[Claim 11] The vehicular lamp according to claim 7, further comprising a light-shielding member provided between said at least one light-emitting element for forming said first beam and said at least one light-emitting element for forming said second beam.